Department of Transportation, Office of the Secretary Financial Management Business Transformation Program Solution Architecture Support April 15, 2009

#### 1.0 Introduction

The Department of Transportation (DoT) is the first Cabinet-level federal entity to successfully implement a state-of-the-art commercial off the shelf (COTS) solution for Financial Management throughout the entire Department. All of DoT's federal agencies are on a single instance of the Oracle Enterprise Resource Planning (ERP) software solution called Delphi. Delphi was implemented by and is supported and hosted by the Enterprise Services Center (ESC). ESC is a Federal Aviation Administration (FAA) organization that is a cross-servicing division of DoT, and is located at the FAA Mike Monroney Aeronautical Center (MMAC) in Oklahoma City, Oklahoma. The DoT Office of the Secretary (OST), Office of Financial Management (B-30) provides the Delphi Program with Departmental sponsorship and managerial oversight. Additionally, B-30 develops DoT-wide financial policy and performs oversight and strategic direction for DoT financial operations.

Additionally, ESC is one of four federal Shared Service Providers (SSP) designated by the Office of Management and Budget (OMB) to provide financial management information system services to other governmental agencies. In addition to serving DOT, ESC supports other federal entities. At this time the following organizations are non-DOT customers of the Delphi system: The National Endowment for the Arts (NEA), Institute of Museum and Library Services (IMLS), the Commodity Futures Trading Commission (CFTC), and the Government Accountability Office (GAO).

ESC is responsible for all Oracle applications development and programming via Oracle program extensions, Oracle system administration, Oracle application administration, Oracle security administration, performance monitoring and all other Oracle technical related production maintenance activities. ESC performs all Delphi functional activities, including design and development of custom extensions, global Oracle applications setup, testing all functional software changes, Tier 2 help desk support and all functional related production control activities. ESC provides Delphi UNIX/Linux operating systems software support, ESC Delphi server hardware administration, console operations, Delphi database administration and all physical server facilities support. Additionally, over the last several years, all the financial transaction processing of every DOT Operating Administrations (OA) has been consolidated to the ESC. ESC provides month-end and year-end close resources, centralized cash operations services, financial statement generation and Delphi/Oracle data integrity reconciliation services for most of the DOT OAs and its non-DOT customers.

During FY 2007, B-30, in partnership with ESC and the Departmental financial community, embarked on an initiative to standardize DOT business processes, develop and define requirements for future financial management system upgrades and establish a strategic plan to standardize the DOT financial management business model in accordance with OMB's Lines of Business Initiatives. The focus areas of the FMBT Program fall into five main categories, and each area has several goals:

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#### 1. Reporting and Information Sharing

- Achieve a fully integrated reporting environment and design an Oracle/Delphi/OA common reporting inventory
- Enable Department-wide roll-up of cost and performance data and improve data quality and integrity
- Design future systems to most effectively support internal and external customers' requirements
- Develop a shared reporting solution and tools to exchange data/information with common internal and external systems
- Refine our interface strategy by defining rules that eliminate redundancies and maximize integration
- Successfully respond to current and proposed OA, OMB, Treasury, and other internal/external reporting requirements

#### 2. Business Process Reengineering

- Reengineer business systems and processes across the Department in order to take full advantage of future system functionality and achieve economies of scale with consolidated accounting services
- In partnership with the DOT Office of Procurement, implement a fully integrated procurement solution
- Develop formal policies to support optimal communication with all stakeholders of financial management information across the Department
- Develop a formal process to guide decisions and future investments

#### 3. Data Management

- Develop and implement a Department-wide Accounting Code Structure (ACS) that is aligned with OMB's CGAC
- Develop and execute data clean-up plan across all OAs
- Develop and execute data conversion plan across all OAs
- Develop and implement a Department-wide future data management strategy

#### 4. Current System Set-Up

- Prepare to convert and manage the transition from the current system set-up (Oracle 11.5.10) to Oracle Financial Release 12 effectively
- Refine the release management process
- Refine the system change request (SCR) process
- Understand Delphi's role in the Department's Enterprise Architecture (EA)
- Develop and implement an archiving and purging strategy for Delphi and any future system
- Successfully respond to current and proposed security requirements

#### 5. Future System Set-Up

 Develop and manage an overarching implementation strategy for future systems that incorporates FMBT decisions and includes training and communications plans

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- Analyze hardware requirements for the transition period to future systems and recommending a hardware solution for the future state
- Successfully respond to current and proposed security requirements for future systems and ensuring compliance

To date, the Department has established a governance structure by which this program will be managed; chartered workgroups responsible for accomplishing each of the five goals listed above; and established a Business Transformation Team (BTT) responsible for managing and coordinating the daily progress of the transformation initiatives.

The overarching goal of the FMBT is to standardize DoT business policy and processes and to streamline and standardize the Department's information management strategy, and in doing so, develop the future business requirements for the Department's financial system.

#### 2.0 Objectives

A transformation as significant as the FMBT requires extensive coordination between the various components of the technical, application, processes, data, and organizational architecture. Because the FMBT requires all components to transform at the same time and in different releases over time, the solutions architect role is particularly critical. This role is not responsible for developing the specific design of the architectures, but must have the ability to see the entire picture from a strategic perspective, understand every aspect of business and technical architecture, and will coordinate these components and ensure integration at various points during the transition. The solution architect will provide project oversight and ensure the FMBT with consistency, avoid conflicting activities, identify missing components, and resolve timing issues.

This Statement of Work (SOW) identifies the requirements and tasks for the solutions architecture support position.

#### 3.0 Expertise Requirements

The Contractor shall provide solution architecture support with demonstrated expertise in:

- Expert knowledge of Oracle Federal Financials Release 11i.
- Expert knowledge of Oracle's Federal Financials full life cycle implementation including application configuration, data migration, reconciliation, reporting and alignment of IT and Finance.
- In-depth knowledge and use of DoT's Delphi system.

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- Expert analytical skills with an understanding and knowledge of the Federal financial system guidelines established by the General Accountability Office (GAO), the Office of Management and Budget (OMB), the Office of Federal Financial Management (OFFM), the Financial System Integration Office (FSIO) and other regulatory agencies and requirements within the federal government.
- Demonstrated ability to map functional requirements to technical design alternatives.
- Demonstrated ability to perform independent reviews of program deliverables.
- Demonstrated ability to provide project and systems architecture oversight.
- Demonstrated ability to assist DoT translate its' vision and strategy into core resource and business processes.
- Demonstrated ability to apply business case development and project justification techniques to varying information technology related questions.
- Demonstrated knowledge and experience with DoT's ESC and IT operations, major IT programs, system integration and technical architecture at both the ESC and OA levels.
- Demonstrated experience and understanding of business requirements and the process of translating them into well-engineered and integrated technical solutions using Service Oriented Architecture (SOA) and reusable components.
- Demonstrated experience providing architectural guidance on large, complex solution development, system integration, and COTS package based implementations.
- Demonstrated ability to design infrastructure to support the required applications.
- Experience in developing overall footprint of the required solution to include: infrastructure, COTS applications, custom applications, integration touch points, data conversion, and reporting solutions to support all business requirements.
- Expert knowledge of Federal financial functionality including IV&V, reporting and procurement.
- Demonstrated ability to assist with an organization's system architecture integration.
- Ability to maintain the overall understanding of architecture changes over time, and how they coordinate with other releases to form the overall release strategy. Ability to understand and ability to document the impacts of changes to agency feeder and dependent systems. Ability to understand, ability to document, and ability to coordinate replacement of agency legacy systems with new Oracle Release 12 functionality.
- Excellent written and oral communications skills.
- PMP certification.

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#### 4.0 Tasks

- 4.1 Work with the Information Management workgroup to understand and document the current "as is" and future "to-be" processes, assisting with the development and execution of a GAP analysis and Transition Plan to identify how DoT will transition from Oracle 11i to Oracle Release 12. This includes assisting in the development of each OA's approach to adopting new processes and data standards.
- 4.2 Assist with the development and management of the Configuration Management Strategy. Work with the ESC application team to understand how the configurations of the new application will support the "to-be" business processes and data, and how those configurations will be released and configured over time. This includes not only the base modules, but the reporting environment as well.
- 4.3 Work with the systems workgroups to understand how the technology architecture (servers, networking, database, supporting software) will support the process and application architectures over time, and ensure coordination of releases; develop and maintain this information in a Technology Architecture Strategy.
- 4.4 Act as liaison between DoT OST, ESC and OAs for Business Transformation Team's systems integration from the DoT OST side.
- 4.5 Support the development of a quality plan, procedures and metrics.
- 4.6 Support DoT's full life cycle implementation, data migration, reconciliation, reporting and alignment of IT and Finance with Oracle Federal Financials Release 12.
- 4.7 Assist in the development of the information delivery strategy and support approach to the FMBT information management team outputs to include a DoT wide data warehouse using and optimizing data from the DoT Delphi system.
- 4.8 Assist with the development and delivery of high level project system requirements document, conceptual, logical architectures and logical design, and will ensure that the physical design and configuration of the delivered solutions are in direct alignment with the logical design.
- 4.9 Provides technical support and advice to the project's technical resources, which could include architects, system engineers, database administrators, and security and business continuity specialists, in developing a well designed and engineered solution that is integrated with the existing or defined IT architecture and services framework, and meets clearly defined technical performance requirements.

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- 4.10 Promotes the development and reuse of common solutions, components and services as well as Common Development and Integration Approach.
- 4.11 Assist with and provide input to architecture standards, guidelines, reference architectures, and the IT Technology Roadmap.
- 4.12 Communicate with B-30 and ESC to ensure critical issues are addressed.
- 4.13 Work with organizational management to facilitate organization change programs, system architecture integration and realized business goals.
- 4.14 Participate in quality reviews to ensure work complies with specified standards.
- 4.15 Review functional requirements for business architecture design.
- 4.16 The contractor will be required to support the Change Management and Learning Team.

#### 5.0 Labor Category / Key Personnel

<u>Senior Manager</u> — this key person shall provide services to assist DOT in planning, initiating, executing, and closing out mission-oriented business programs and projects. Services included are: Project leadership and communications with stakeholders; project planning and scheduling; project management, including reporting and documentation associated with project / program objectives; stakeholder briefings, participation in required meetings, and related project support services; program integration services; and project close-out services.

#### 6.0 Qualifications:

- 6.1 Minimum 10 + years experience in Business Process Re-engineering, business architecture design implementation, change management, business process optimization, and business process redesign.
- 6.2 Contract resource(s) shall possess in-depth knowledge of DoT's financial system to include at least five years hands-on experience working with Delphi. In addition, knowledge of DoT's current solution architecture including interfaces and related systems.
- 6.3 Contract resources shall have in-depth experience with the Oracle Federal Financials software and related technologies, as well as experience with Oracle software upgrades.
- 6.4 Contract resource(s) shall have an understanding of DoT and federal accounting practices, including a variety of concepts such as Budgetary Accounting, Trust Funds, Reimbursable Agreements, etc...

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- 6.5 Contract resource(s) shall have in-depth understanding of general IT concepts including Project and Program Management, development and testing practices, configuration management, data warehouse, IT architecture concepts, Service oriented architecture, IT security and system tuning and performance.
- 6.6 Contract resources(s) must have a full four-year course of study in an accredited college or university leading to a bachelor's degree in related fields related to this requirement such as Computer Science and a master's degree in Business.

## 7.0 Personnel Supervision

This contract was not formed as nor is it to be administered or performed as a personal services contract. Accordingly, the contractor shall designate appropriate and sufficient supervisory personnel to meet task outcomes. The Contractor will provide day-to-day supervision of all contract personnel including, but not limited to, work assignments and performance monitoring, payroll records, leave approval and monitoring, etc. At no time will contractor personnel be supervised by OST or FAA managers or other OST or FAA personnel. OST/FAA will provide, as needed by the contractor, limited assistance in the form of technical and policy guidance through the assigned COTR.

#### 8.0 Deliverables

The contractor will provide the following deliverables in support of this contract. As the FMBT Integrated Master Plan is not finalized as of this document preparation, all dates are estimates and dependent upon other team outputs.

- 8.1 <u>Contractor Schedule</u>: within 10 days of contract award, the contractor will provide the Contract Officer Technical Representative (COTR) with a schedule identifying the timeframes for completing the requirements of the task order.
- 8.2 <u>Transition Strategy</u>: describes how DoT will transition from Oracle 11.5.10i to Oracle Release 12, including documenting each OA's approach to adopting new processes and data standards. (9 months after start of task)
- 8.3 <u>Configuration Strategy</u>: describes approach to defining, planning and tracking the overall solution configuration over the life of the program. (3 months after start of task)
- 8.4 <u>Configuration Plan</u>: describes how the configurations of the new application will support the "to-be" business processes and data, and how those configurations will be released and configured over time; includes not only the base modules, but the reporting environment as well. (12 months after start of task)

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- 8.5 <u>Technology Architecture Strategy</u>: describes the approach to ensuring that the technology architecture will support the process and application architectures over time, and ensure coordination of releases. (5 months after start of task)
- 8.6 <u>Status Reports</u>: Provide status, advice, action items and communication weekly to the COTR on work performed and the next week's work to be performed.

The contractor shall be able to provide the described professional services in accordance with each individual deliverable.

The methods of surveillance for each deliverable shall be Technical Evaluation, COTR Monitoring, Periodic Inspection and Customer feedback with each deliverable.

The contractor shall provide non-disclosure statements for all employees 10 days after contract award and for each new employee placed into employment.

#### **Future Deliverables**

As the FMBT is a multiple year project and the Integrated Master Plan is not finalized as of this document preparation, we have listed below some estimated future deliverables to be to assist and collaborate with the FMBT teams. These will be evaluated and negotiated for delivery timeline when needed:

<b>Project Phase</b>	Deliverable	Description
Vision and Plan	High Level Conceptual Technical Architecture Vision Document	The finalized document stating the vision of the high level conceptual technical architecture vision
Vision and Plan	R12 Deployment Strategy	This document correlates to the transition strategy currently listed.
Vision and Plan	High Level Technology Impact Assessment	Outlines the impact of the R12 solution on the current architecture and infrastructure
Vision and Plan	Instance and Configuration Management Strategy and Plan	Outlines the process by which instances will be setup and data, patches, etc. will be migrated across instances
Design	Application To Be Process Business Scenarios	Outlines the Business Scenarios that will be used to test components of the R12 application. There are scenarios for each of the Key Process Areas as defined by B30. These documents are not the actual updated processes and

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		requirements. They are documents produced by the systems team once the processes and requirements have been completed.
Design	Testing Plans (Unit, Integration, Application Security, Conversion, Stress, Performance, Disaster Recovery and COOP, and User Acceptance)	Outlines processes, procedures, and acceptance criteria surrounding all testing cycles
Design/Build	Interface and Data Migration Control Strategy	Outlines the technical components of the data migration process and the process, procedures, and checkpoints needed to complete the process successfully
Design	RICE (Reports, Interfaces, Conversion, and Extensions) Strategy Document	Outlines process by which user requirements surrounding reports, interfaces, conversion, and extensions will be met while balancing the need to limit customizations to Oracle COTS package
Build	Application Security Design Document	Outlines the requirements surrounding the design and build of application security requirements.
Deliver	Deployment Readiness Documentation	Outlines the requirements surrounding the deployment readiness
Deliver	COOP Completion and Signoff	Outlines the requirements surrounding DOT's continuity of operations.
Operate	Wave 1 Lessons Learned Document	Outlines lessons learned during the first wave of implementation that can be used to enhance future waves

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#### 9.0 Acceptance of Deliverables

The FMBT will have ten (10) business days to review all deliverables. The FMBT will accept or reject the deliverables in writing to the COTR who will then coordinate with the contractor for corrections. In the event of the rejection of any deliverable, the Contractor shall have five (5) business days to correct the rejected deliverable and return it to the COTR for FMBT approval.

#### 10.0 Travel

The contractor may be required to travel in support of this contract. The Contractor is responsible for arranging all required travel. The provisions of the Federal Travel Regulations as prescribed and issued by the General Services Administration will be used for establishing allowable reimbursement costs for travel. All travel authorizations must be submitted to the COTR for review with final approval granted by the Contracting Officer.

#### 11.0 Place(s) of Performance

The government will provide temporary office space to include telephone and computer hook up at the Enterprise Services Center located in Oklahoma City, Oklahoma and DOT headquarters in Washington D.C., when required to perform the required tasks.

All materials provided by the government during the course of this contract will remain the property of the government and will be returned upon completion of the contract. All deliverables prepared by the contractor during the course of this contract will also remain the property of the government upon completion of the contract.

#### 12.0 Hours of Performance

The contractor will be required to perform the task order requirements during regular business hours from Monday through Friday from 0900-1700 (EST) or as otherwise jointly agreed.

#### 13.0 Period of Performance

The project start date shall be within 10 days after contract award. The period of performance is twelve (12) months after the contract award with four one year option periods, if exercised at the discretion of the Government.

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#### 14.0 Observance of Legal Holidays

The Government observes only the holidays listed below:

New Year's Day
Martin Luther King, Jr.'s Birthday
Inauguration Day -D.C. Area Only
Washington's Birthday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veterans Day
Thanksgiving Day
Christmas Day

Any other day designated by Federal statute Any other day designated by Executive Order Any other day designated by Presidential proclamation

When any such day falls on Saturday, the preceding Friday is observed and when any such day falls on Sunday, the following Monday is observed. The Contractor will not generally be required to work on Federal holidays or other days when the FAA work site is closed. The Contractor will not be paid for days not worked.

#### 15.0 Acronyms

•	B-30	Office of Financial Management
•	CFTC	Commodity Futures Trading Commission
•	COTS	Commercial Off The Shelf
•	DELPHI	DoT's financial management system based on Oracle Federal Financials
•	DoT	Department of Transportation
•	ERP	Enterprise Resource Planning
•	ESC	Enterprise Services Center
•	EST	Eastern Standard Time
•	FAA	Federal Aviation Administration

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•	FMBT	Financial Management Business Transformation Program
•	FSIO	Financial Systems Integration Office
•	GAO	General Accountability Office
•	IMLS	Institute of Museum and Library Services
•	MMAC	Mike Monroney Aeronautical Center
•	NEA	National Endowment for the Arts
•	OA	DOT Operating Administrations
•	OFFM	OMB's Office of Federal Financial Management
•	OMB	Office of Management and Budget
•	OST	Department of Transportation's Office of the Secretary
•	PMP	Project Management Institute's Project Management Professional
•	SOW	Statement of Work
•	SSP	Shared Service Provider